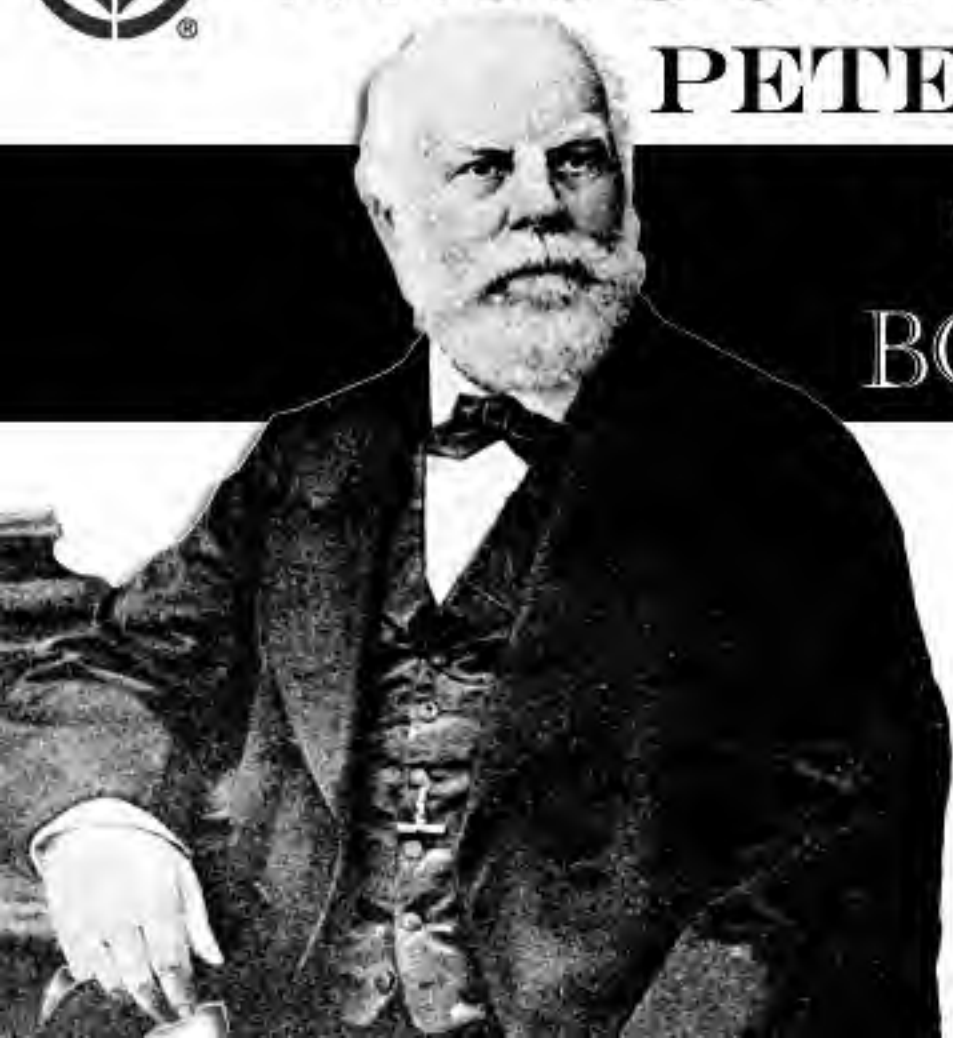




MISSOURI BOTANICAL GARDEN
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GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

Pagination Note:

Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

P. tub

P. Engelmanni



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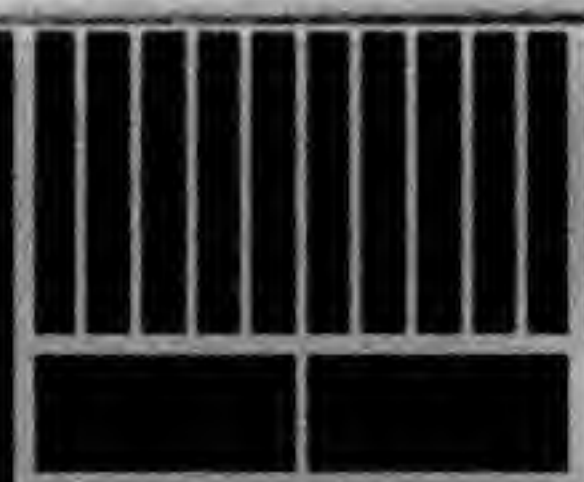
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MISSOURI
BOTANICAL
GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12430



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cm

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MISSOURI
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GARDEN

Abies Engelmannii

Dec. 1862

Pikes Peak

I



x4

x4

Scales purple, squarrose

ovule

x30



x30

x60



x60

micropyle



x4

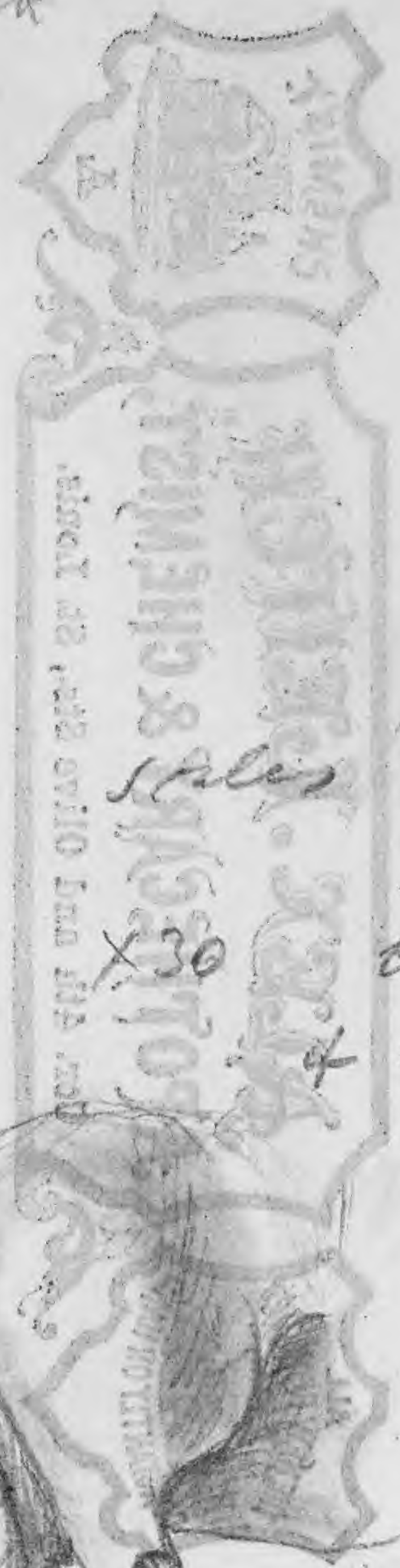


x4

Scales

x30

both ovule
& ament




ALEX. LEITCH,
APOTHECARY & CHEMIST,
 Cor. 4th and Olive Sts., St. Louis.


MISSOURI BOTANICAL GARDEN
 GEORGE ENGELMANN PAPERS

12431



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cm

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a₁

Abies Engelmanni Parry

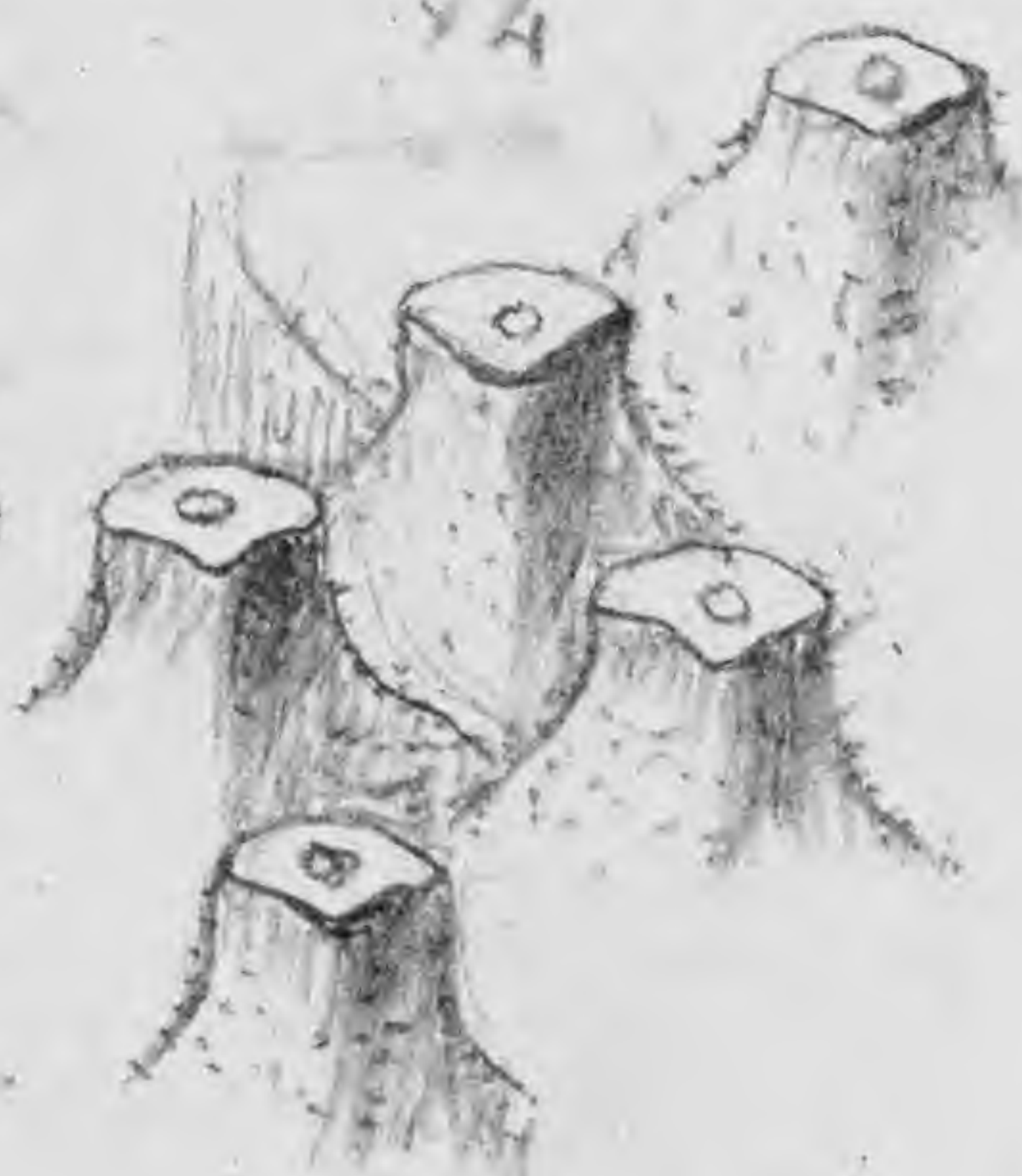
Oct 8, 62

x4



dorsal

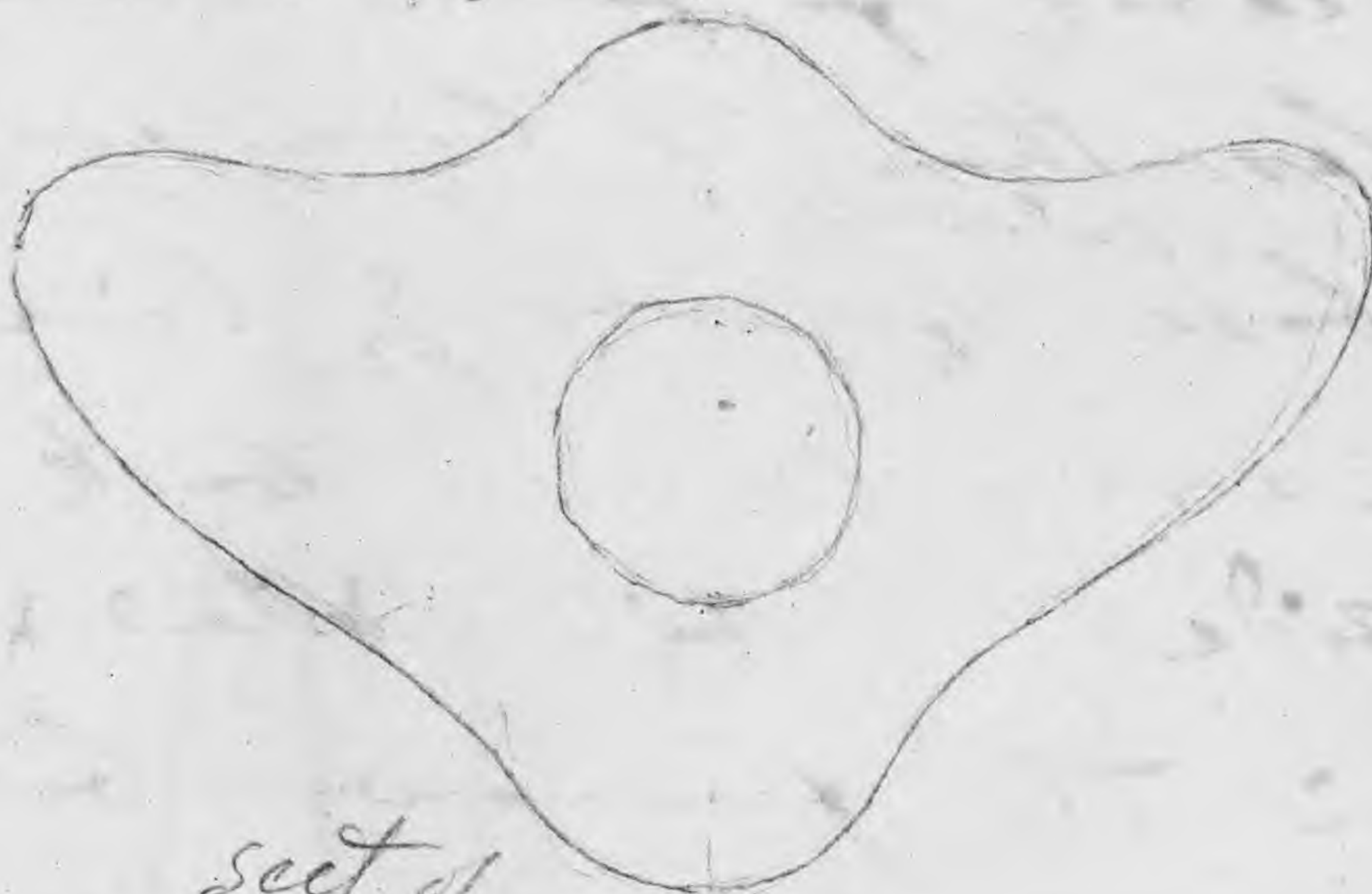
x4



base of leaves



upper
side



sect of
leaf x30



over



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cm

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GARDEN

12432

M. W. ALEXANDER,

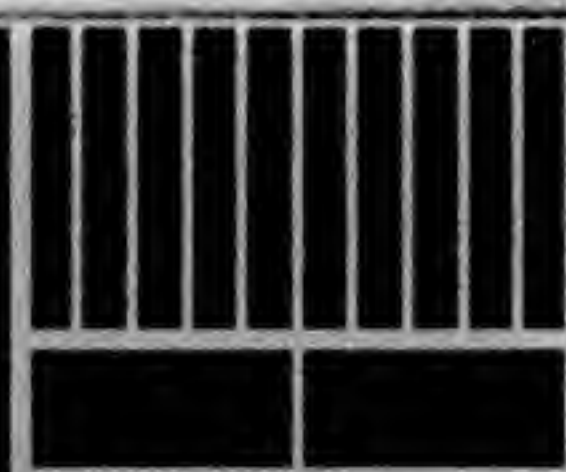
SOUTH-EAST CORNER OF FOURTH AND MARKET STREETS,

ST. LOUIS.

leaves of fertile branches about 8 lines long,
 less than 1 line wide, on a persistent
 (pulvillus) base $\frac{1}{2}$ over $\frac{1}{2}$ line in length, strongly
 ciliate on back, less so on the upper
 side, white dotted & lined on the upper side
 in the furrows between the ^{round thick} edges and the
 back, green on the back — often incurved,
 acutish

Cones ovoid ~~pendulous~~ on long peduncles or
 rather branches

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 GEORGE ENGELMANN PAPERS

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 GARDEN

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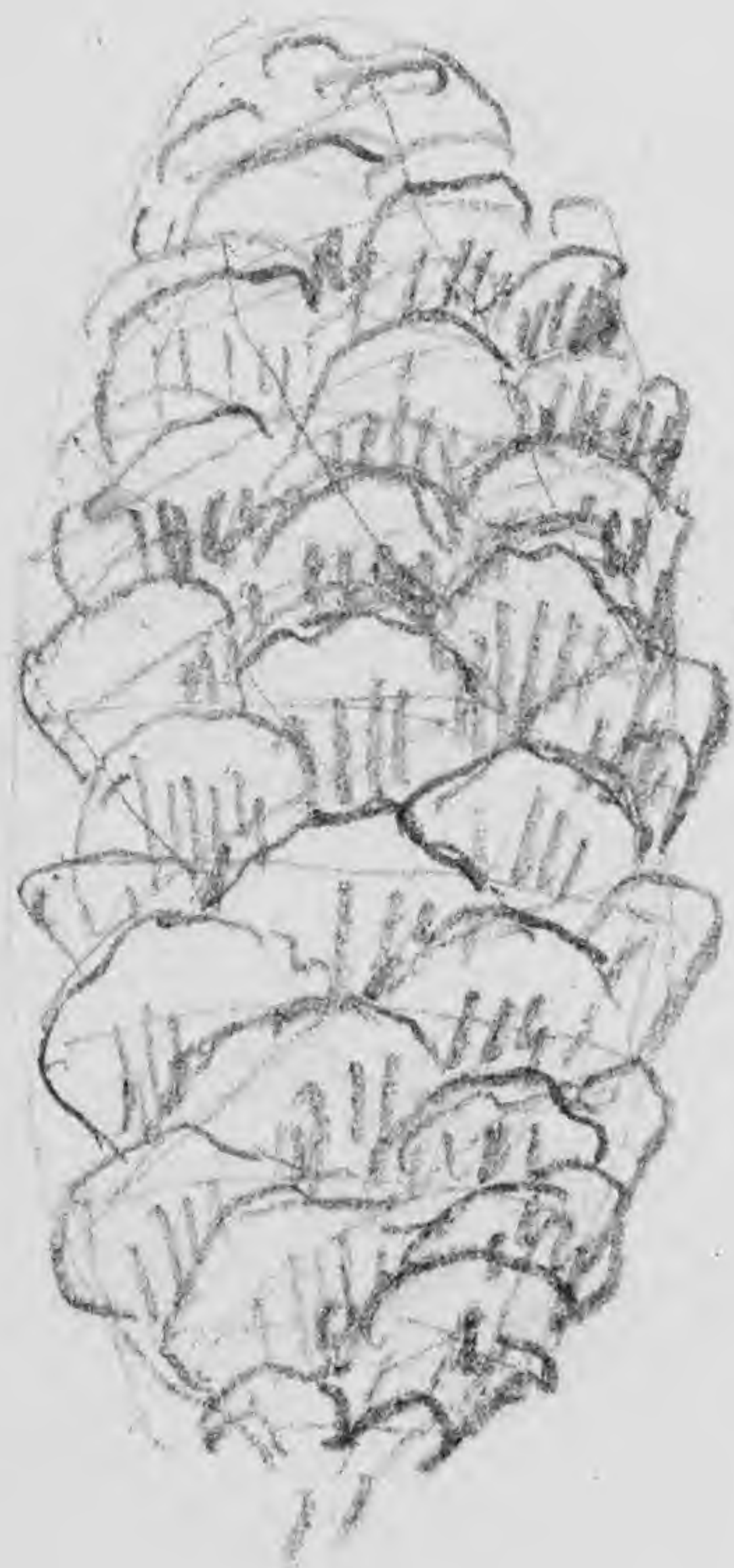
Nov 1862

Headwaters of Columbia

River

L. Hayden

July 1860



x2



0 1 2 3 4 5 6 7 8 9 10

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12433



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cm

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C,

Abies Engelmannii

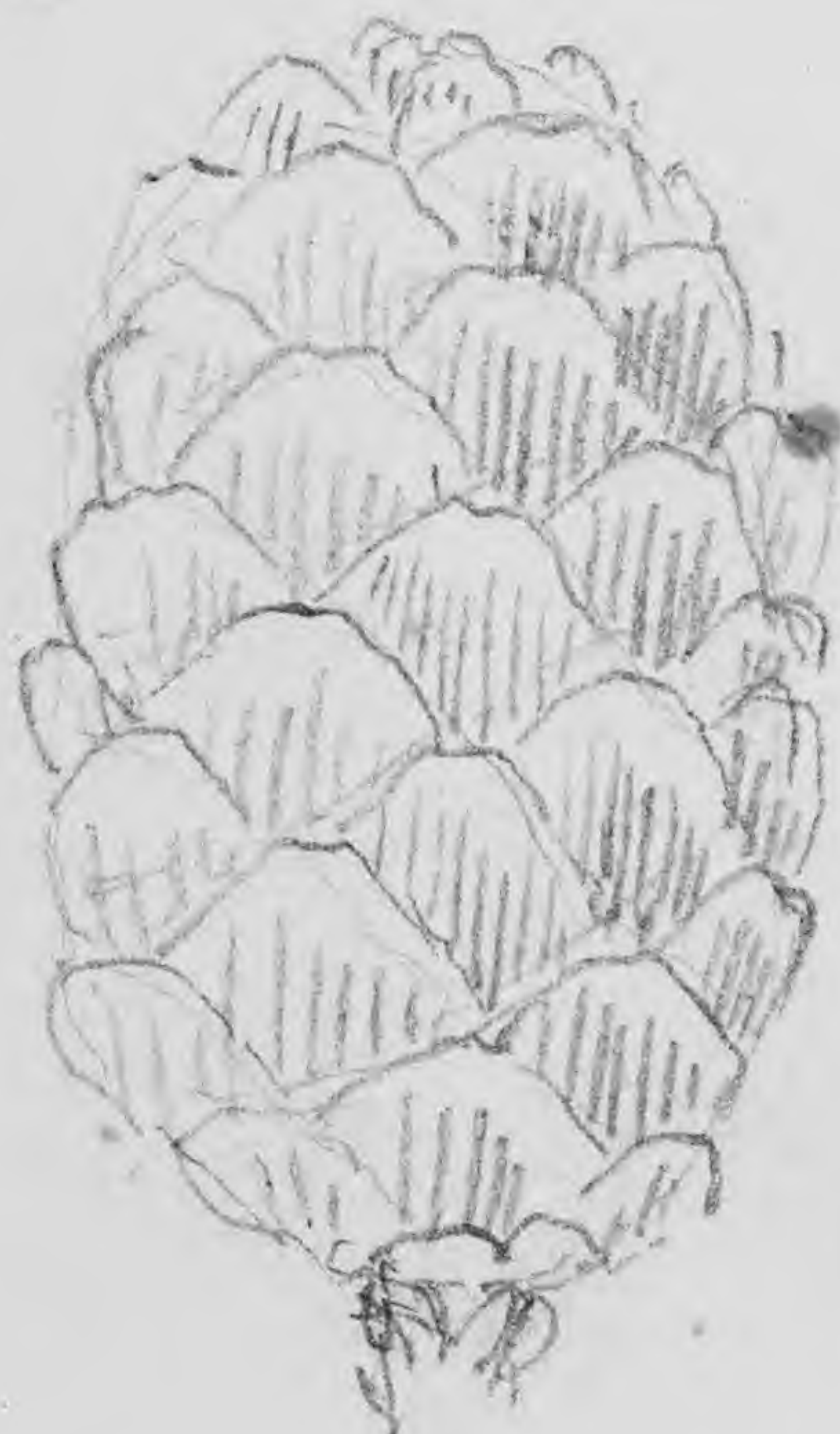
Summit of Wind River

Wyo

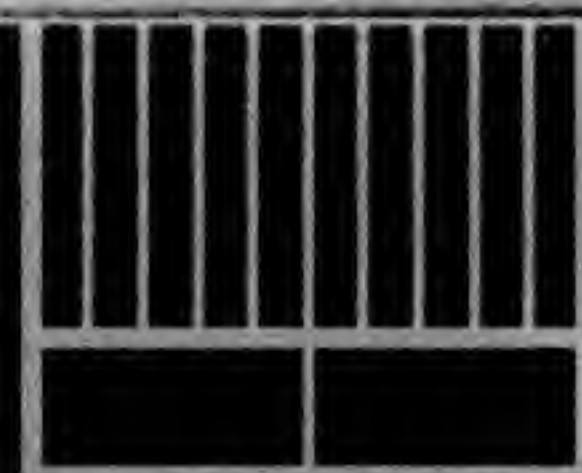
Dr Hayden

7 June 1860

Nov 1862



X2



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12434



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Abies Engelmannii

Nov 1862

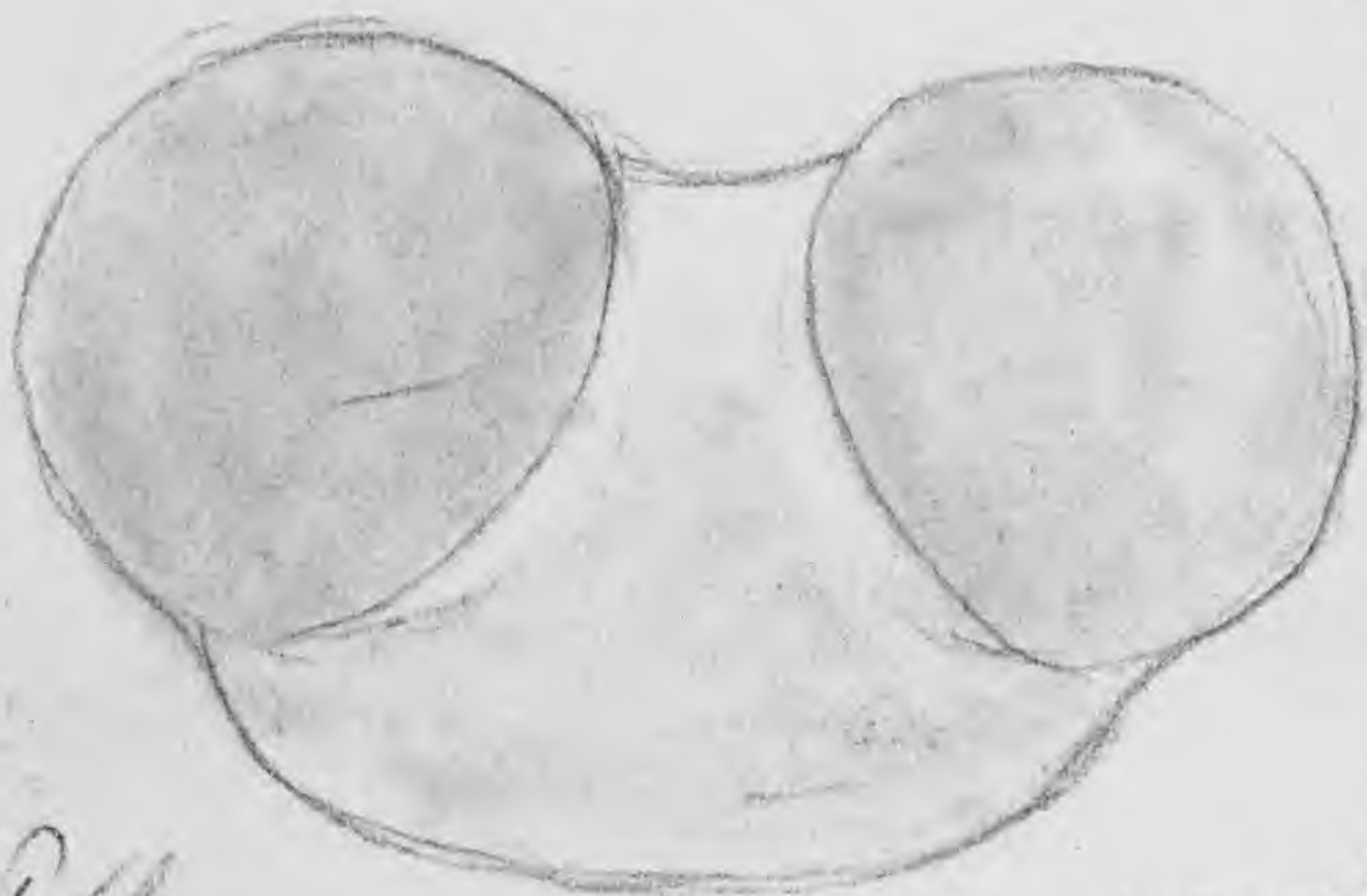
Nov 1862



X 10



X 415



Pollen

0.053 mm



male ament



X 4



young ament.
on top of branch



0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN


ALEX. LEITCH,
APOTHECARY & CHEMIST,
 Cor. 4th and Olive Sts., St. Louis.


415 2200 / 0.059
 2075
 1250

MISSOURI BOTANICAL GARDEN
 GEORGE ENGELMANN PAPERS

0.023

12435



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Abies Engelmannii
Big Horn Mountains

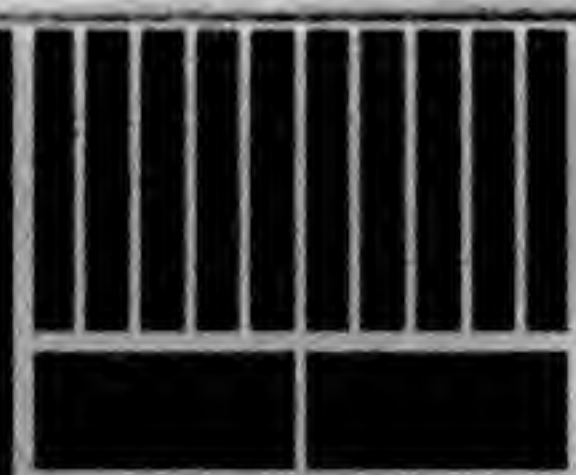
Nov. 1862

L. Hayden 1859



x 2

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS
NOV 1862
L. HAYDEN 1859



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cm

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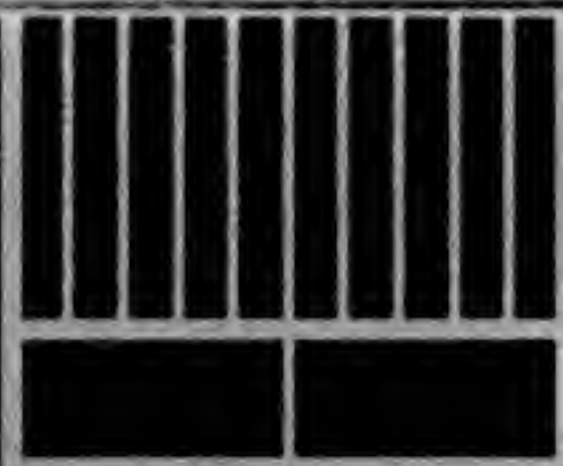


MISSOURI
BOTANICAL
GARDEN

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Corner 4th & Olive Streets, St. Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12436



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cm

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MISSOURI
BOTANICAL
GARDEN

cf.

Eng

Nov 62

J. roner,
Parry



x 10



6 styles
acute

Spec from lower
Mountains
Parry 1862



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



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GARDEN

CHEMIST

ALEX. LEITCH

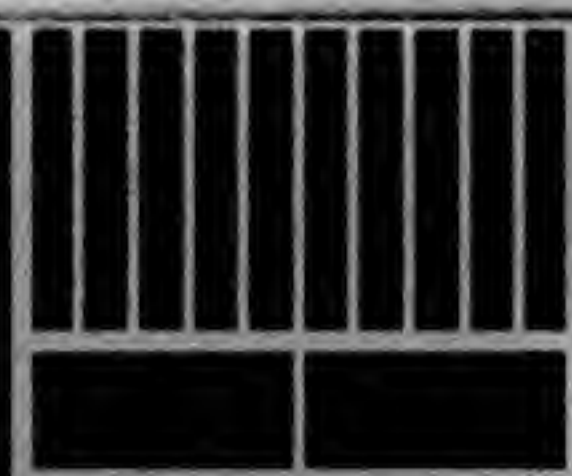
APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES
CONSTANTLY ON HAND

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12487



0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

a,

Sept 1862

A. Seydlitzii - Parry (1)

Nov 1862

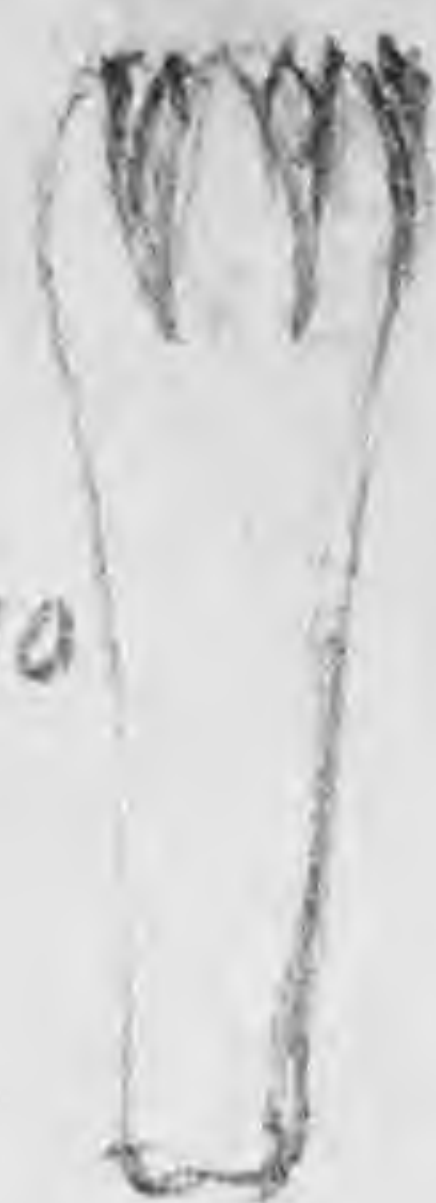
forma alpina

(spec. with bark)

$\frac{8}{13}$

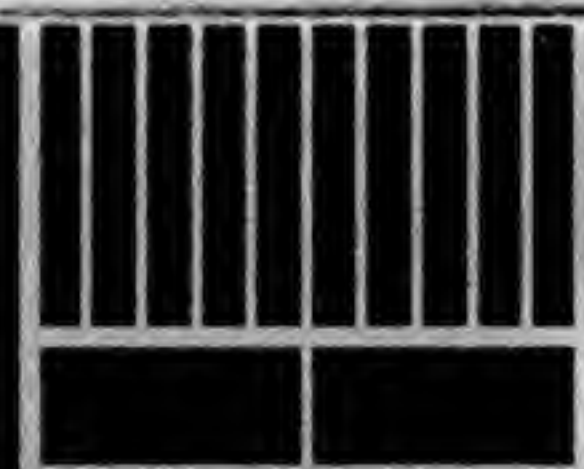


x 10



Cotyl 6

(rarely 5)



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MISSOURI
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GARDEN

M. W. ALEXANDER,

SOUTH-EAST CORNER OF FOURTH AND MARKET STREETS,

ST. LOUIS.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12438



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GARDEN

T. lat.

P. purpureus



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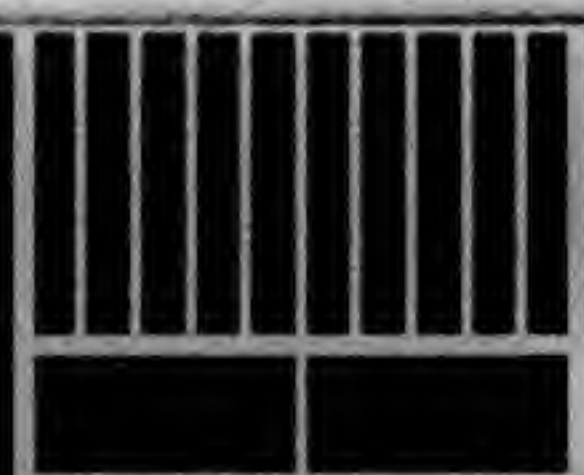
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12439

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GEORGE ENGELMANN PAPERS



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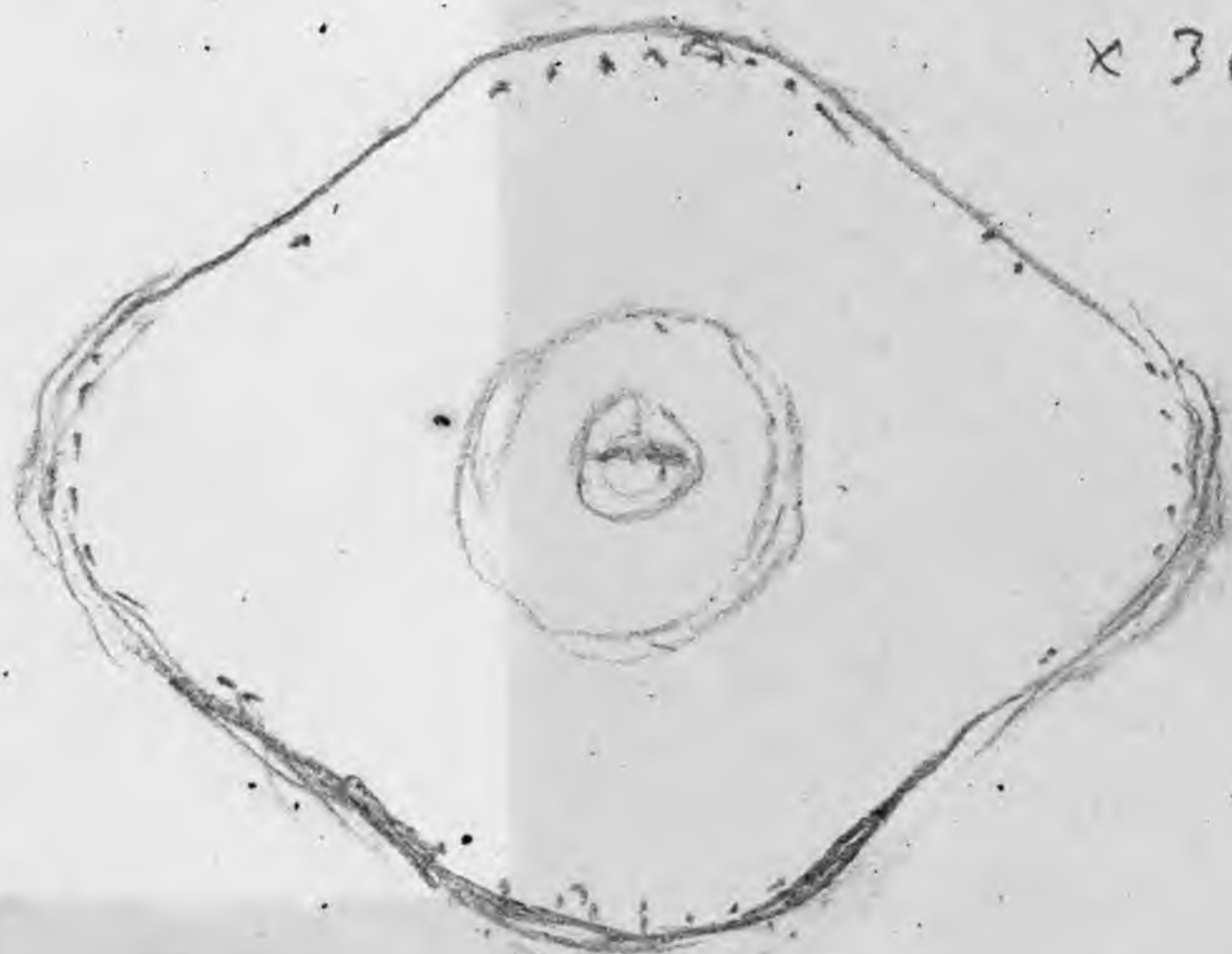
cones very small

Picea pungens

var. *puberula*

South Utah, Siler

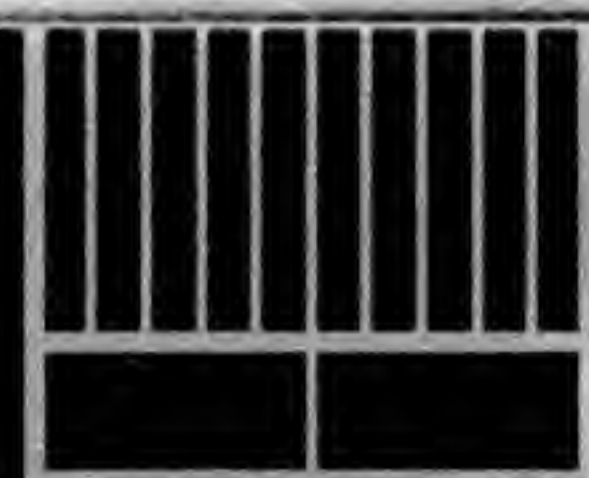
Oct 21 1879



x 30

about 6 series of striae
on each side above

about 4-6
on each side below



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI
BOTANICAL
GARDEN

HENRY T. ROHLFING

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,
ST. LOUIS, MO.

No. Date, 187

R

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,
No. 3003 Locust Street.

12440



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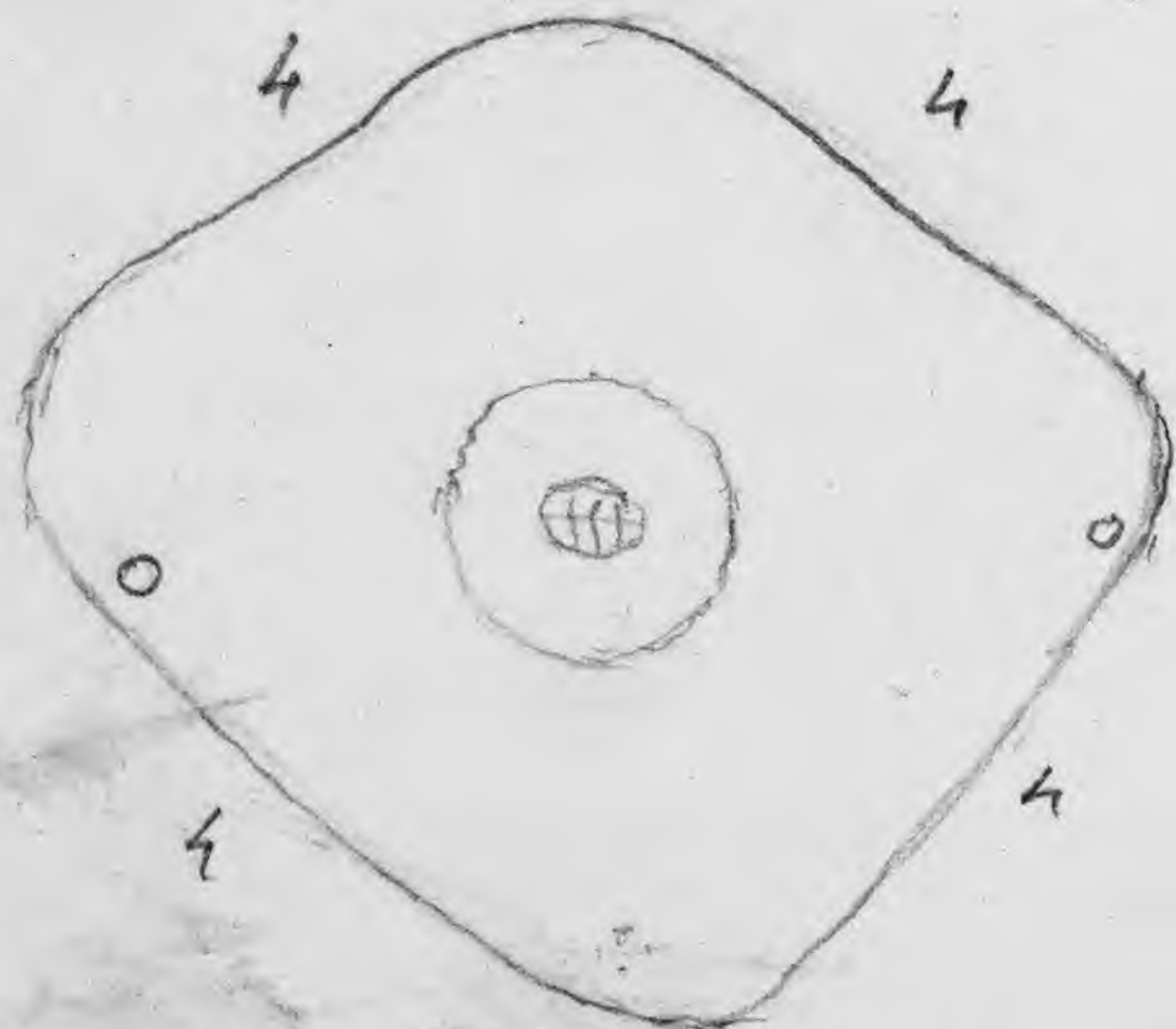
Picea pungens

but pubescent beneath June 9 1879

foliis quadratis

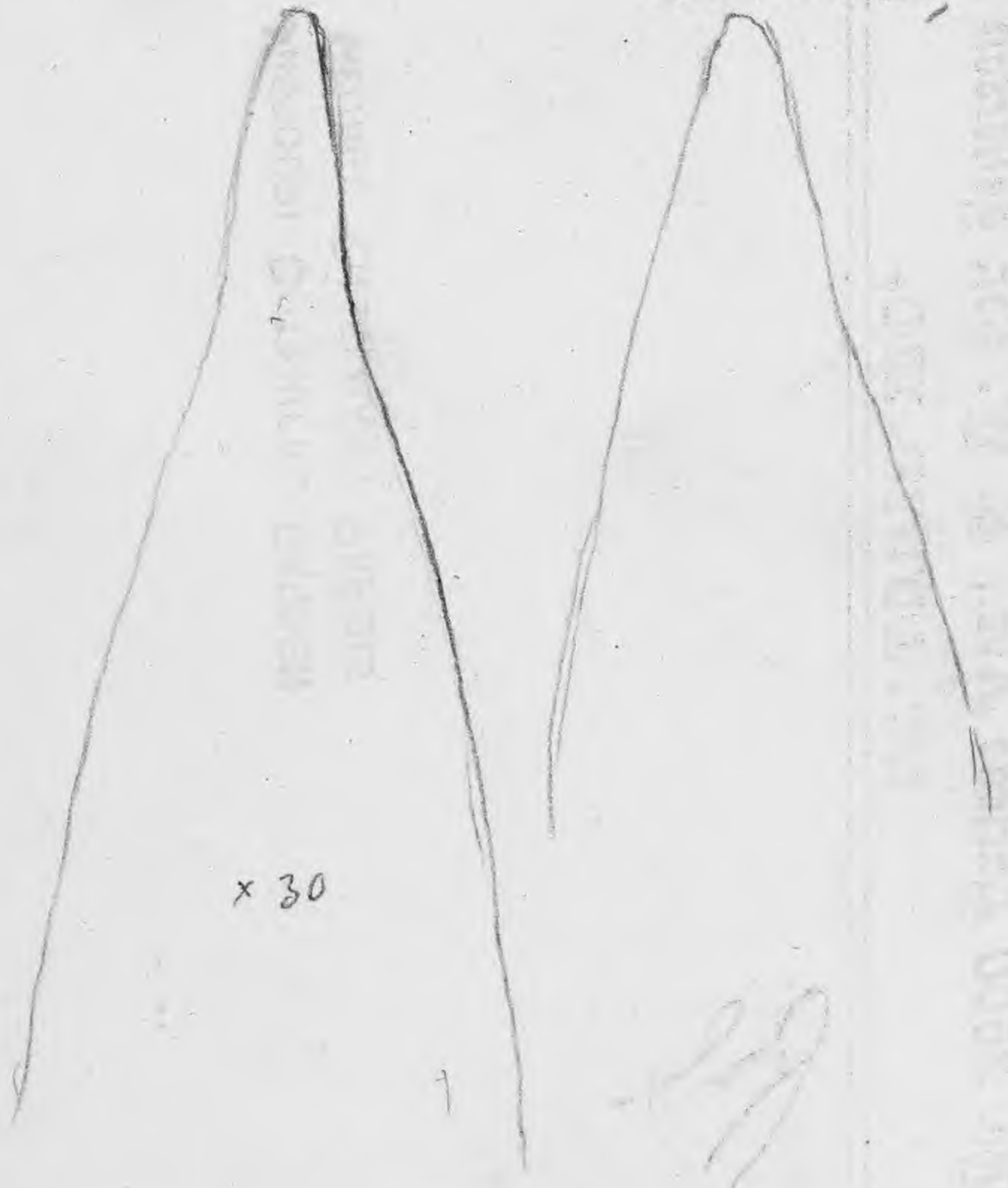
Wesalch, A. L. Siler
1879

x 30



4 rows of stomata on each
of the 4 sides
only 5 incomplete rows
above

x 30



0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL
GARDEN

Henry T. Robinson,
APOTHECARY.

No. 2600 Loclede Ave., S. W. Cor. Jefferson Ave.
ST. LOUIS, MO.

R.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12441



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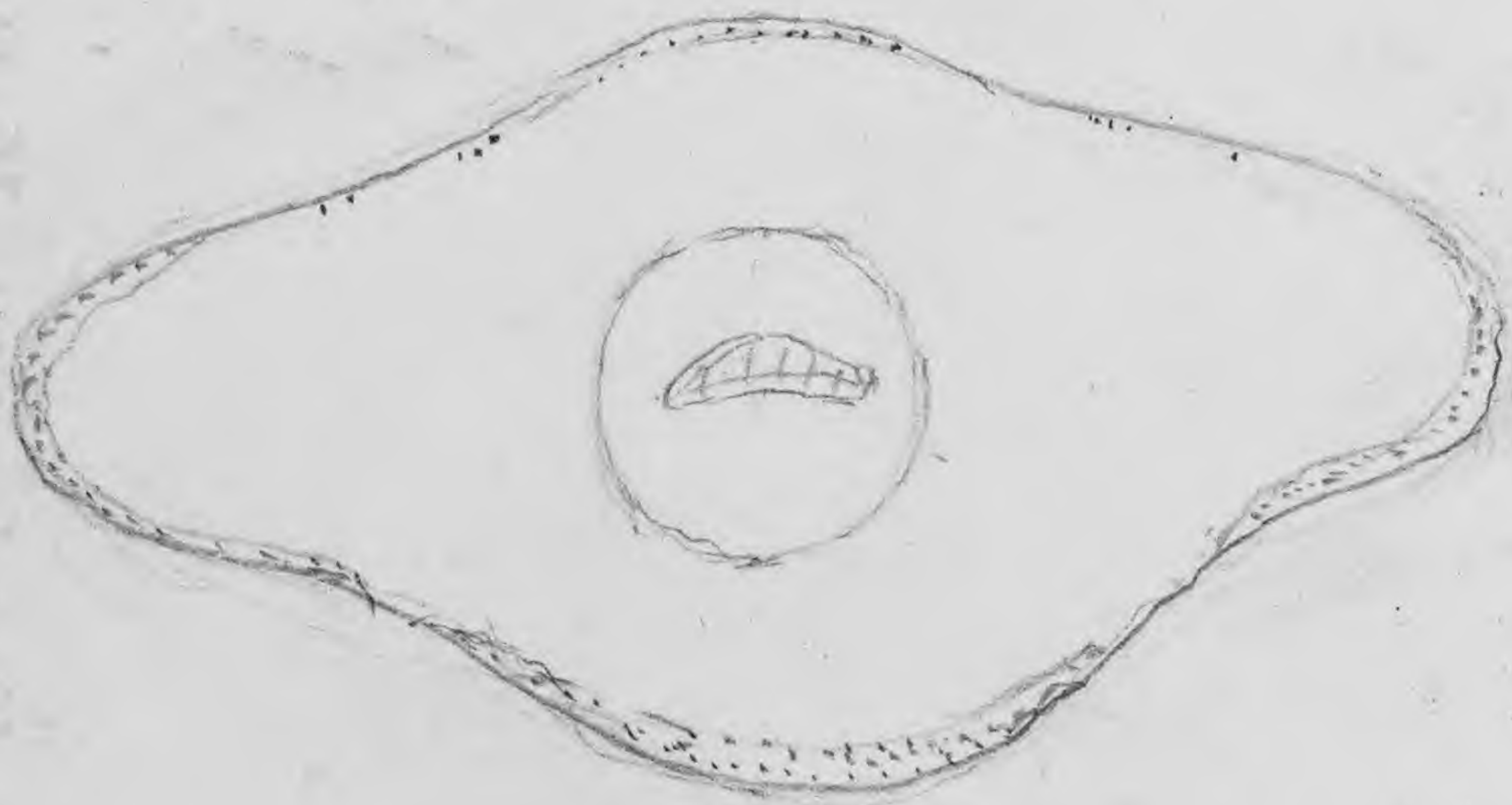
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Pilea Menziesii ?

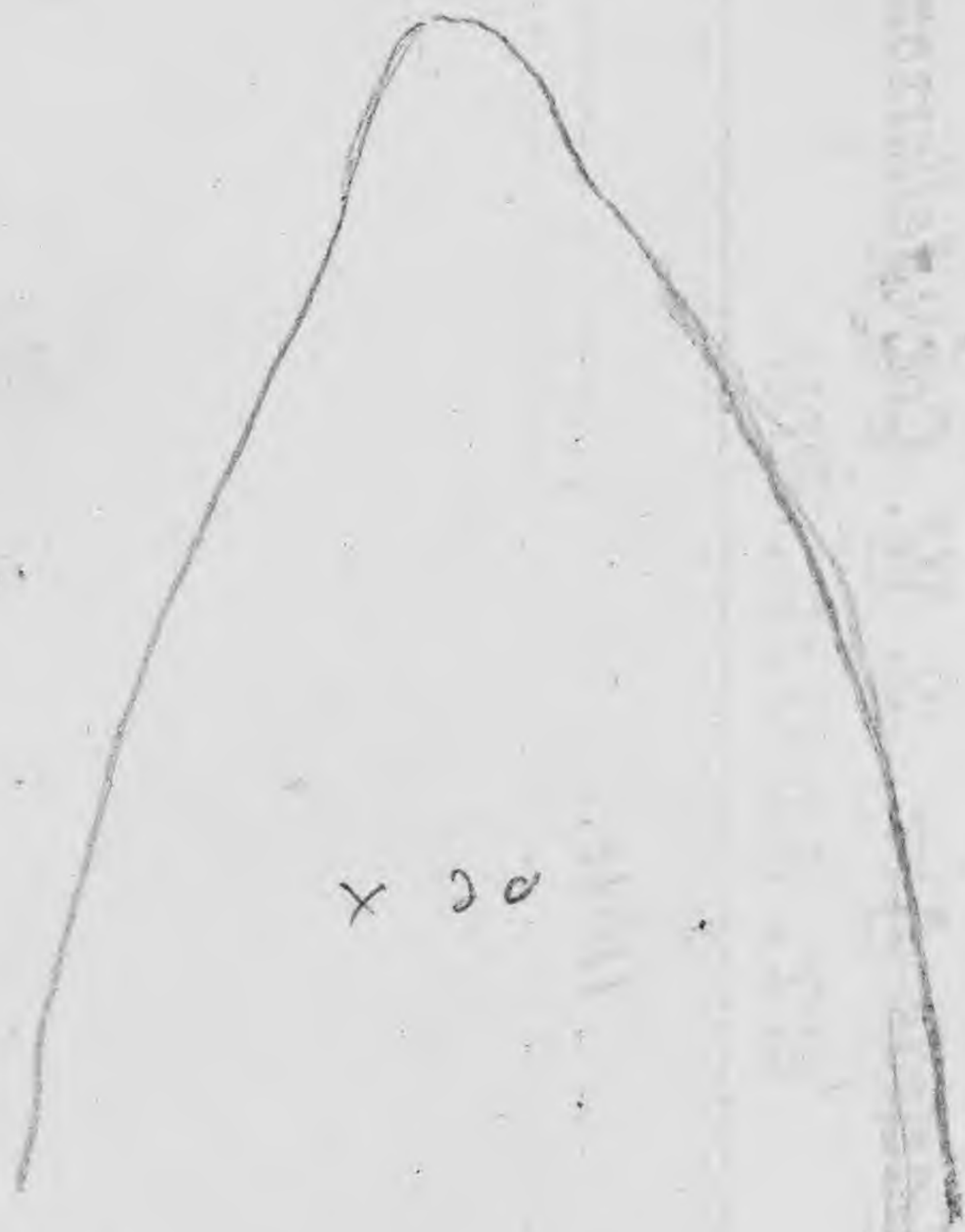
May 3^d 1878

Wind River Mountains, Hayden

x 30

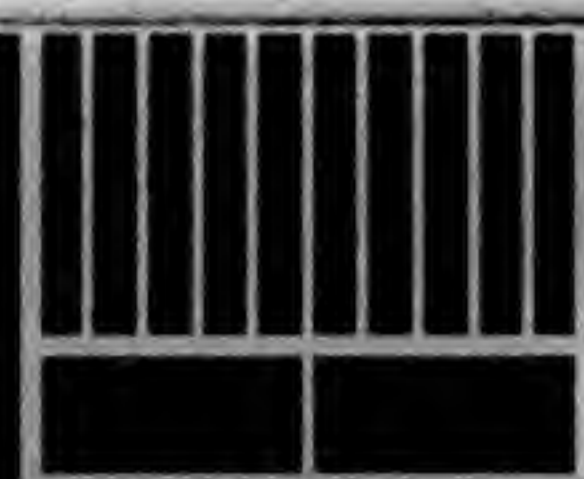


x 30



hypoderm on angles, but less than
in *Menziesii*

also on under surface
and a few scattered cells above
no hypoderm cells within sheath



0 1 2 3 4 5 6 7 8 9 10

cm

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No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

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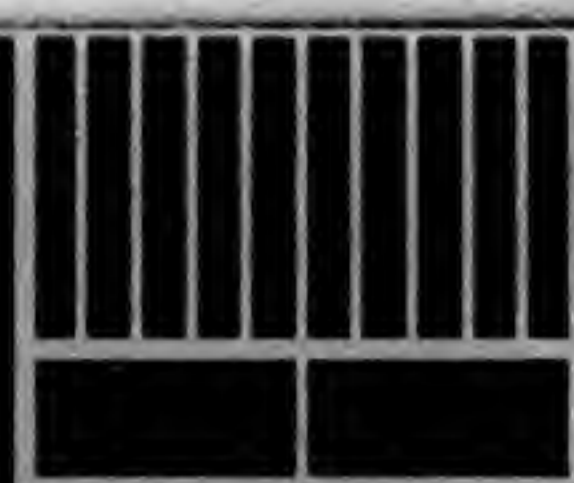
R

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,

No. 3003 Locust Street,

12442



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Picea menziesii

Colorado 1870

St. Louis mis.

April 29 1871

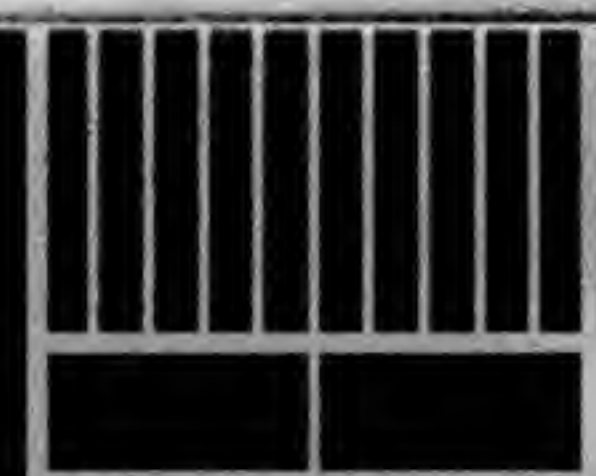
x30

x30

no ar. ducts
in these leaves

sections of
different leaves
bundles of vessels
very small

well and correctly drawn!
stronger canina mostly below
sonnetium upwards!



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cm

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GARDEN

HOELKE BROS.,

[Successors to SAMUEL D. HENDEL,]

Apothecaries & Chemists,

S. W. Corner of 6th and Market Streets,

ST. LOUIS, MO.

R

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12443



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MISSOURI
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GARDEN

Abies Menziesii
 Colorado Parry 1862

Nov 1862

x 10



6 (rarely 7)
 Cotyledons



upper or
 inner side

x 2

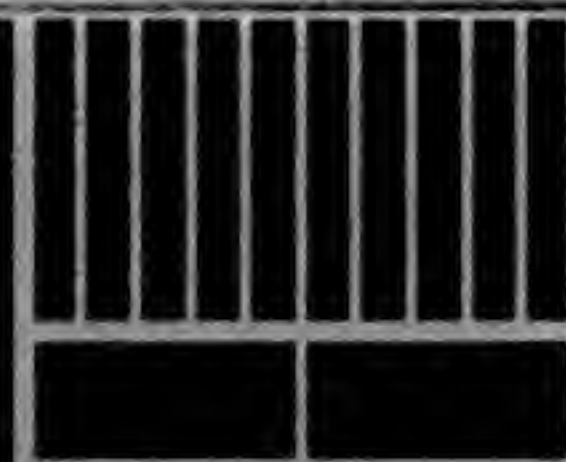


lower side
 toward scale



seed not half as long
 as scale!

scales 13
 / 21



0 1 2 3 4 5 6 7 8 9 10

cm

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12444



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cm

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"*Abies menziesii*"

Jun 16 1878

from Colorado

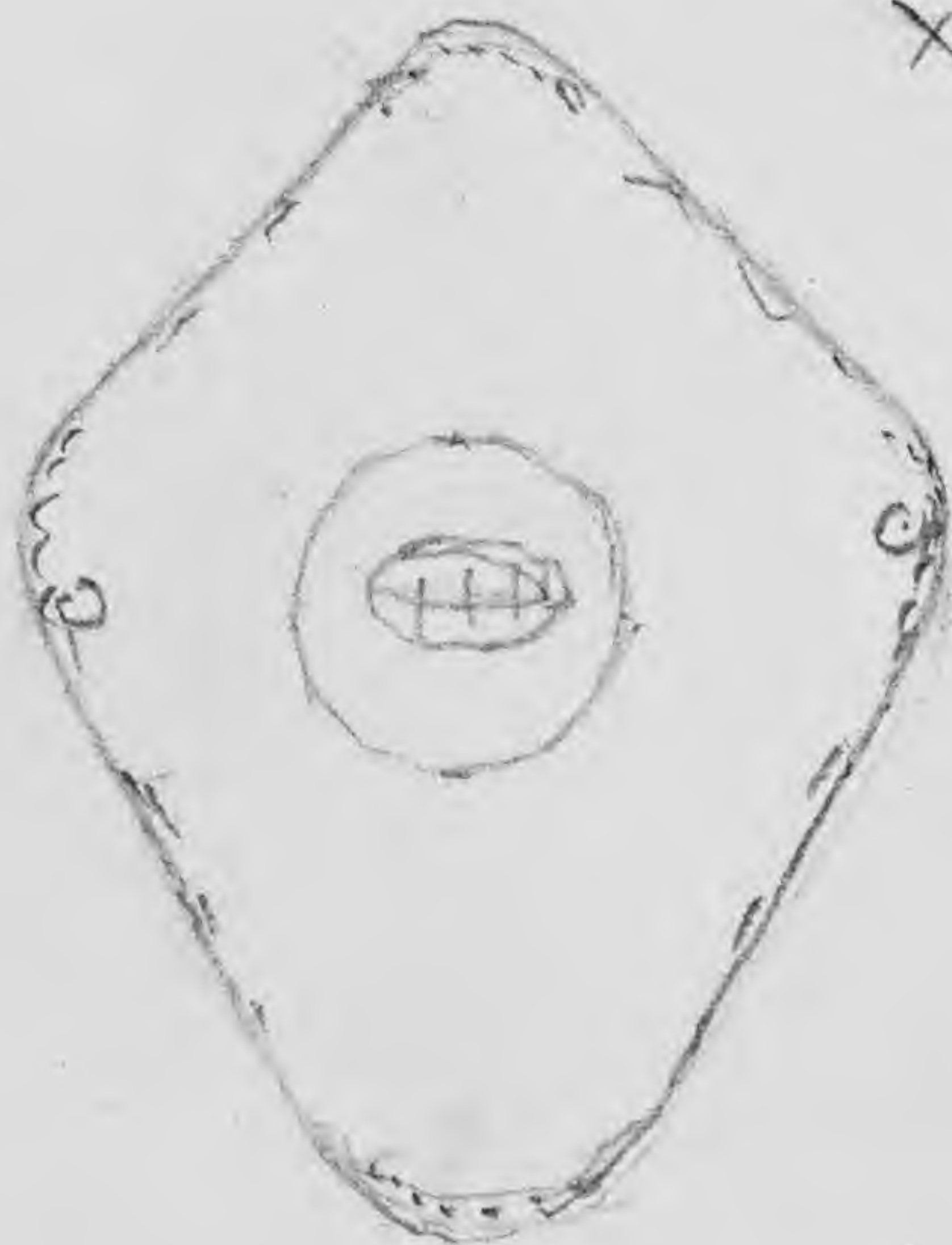
fresh

Hort J. Hoopes.

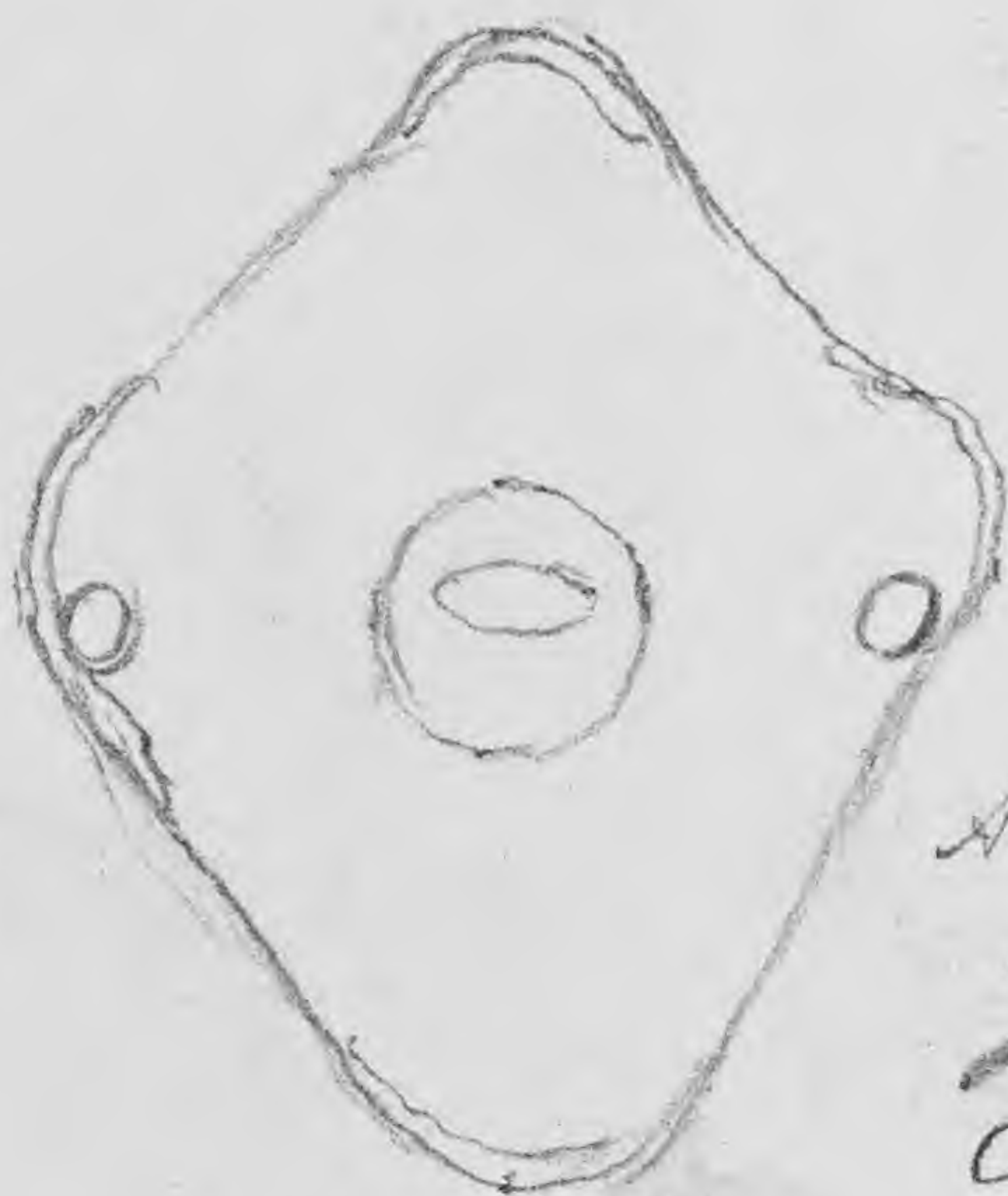
Jun 1878 J. fide

x 30

off only one dent
mostly absent



mostly absent



form viridis

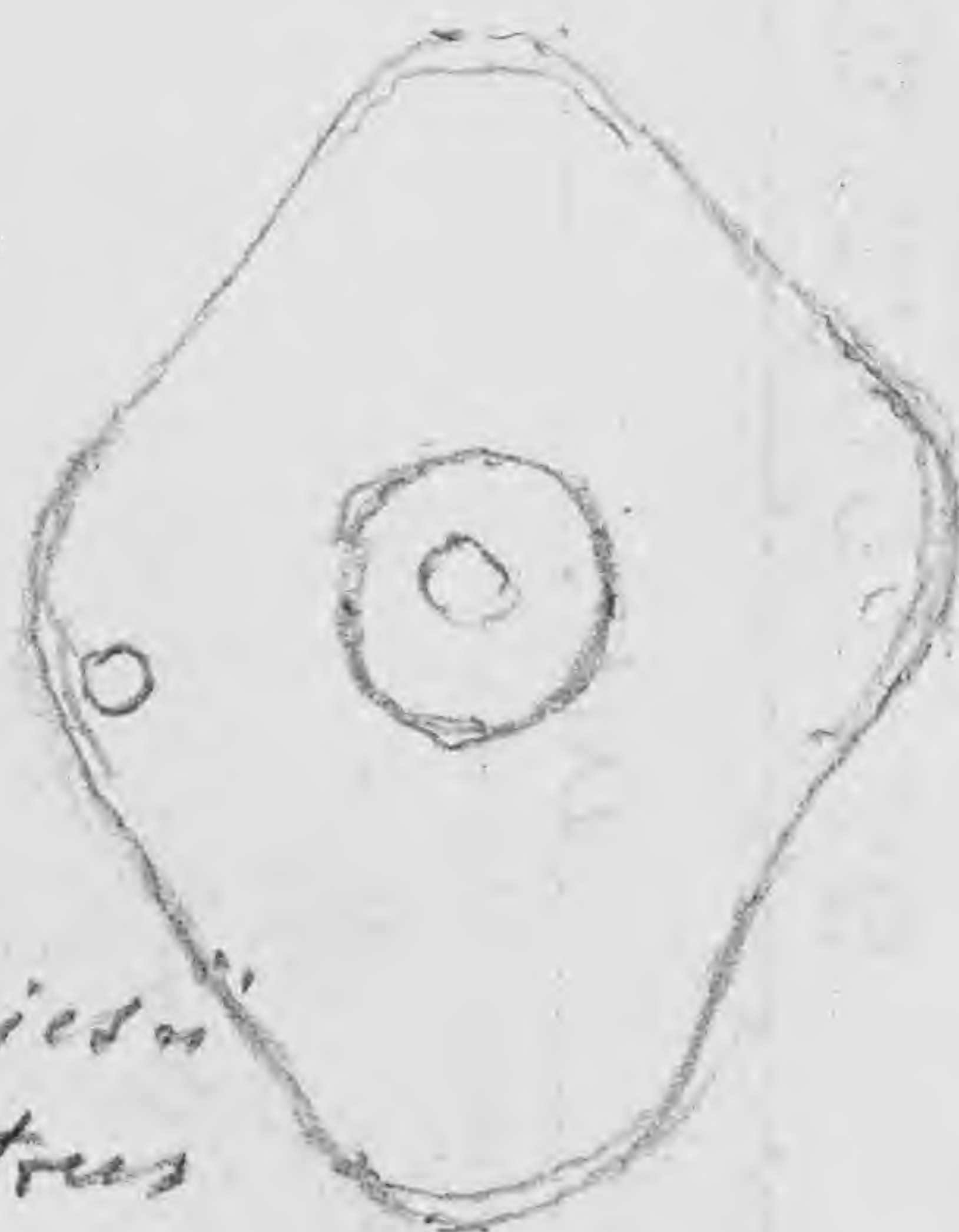
A. menziesii
young trees

Cambridge

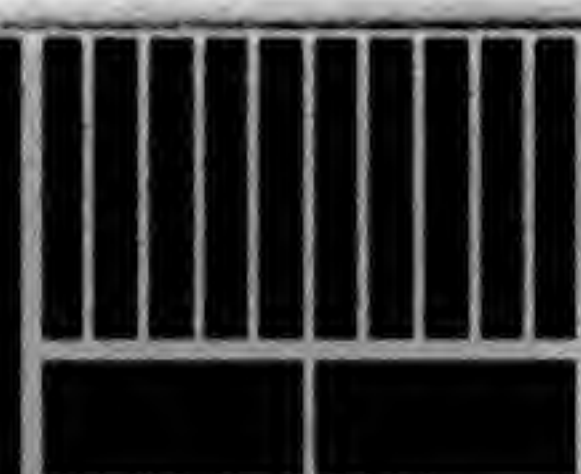
Sargent

Jun 1878

fresh



form glauca



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APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,
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No. 187

Date,

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GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,

No. 3003 Locust Street,

12445



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GARDEN

May 1862

Abies Menziesii

S. Parry 1861

Colorado



very young cone
scales membranous
squarrose, (somewhat
reflexed)



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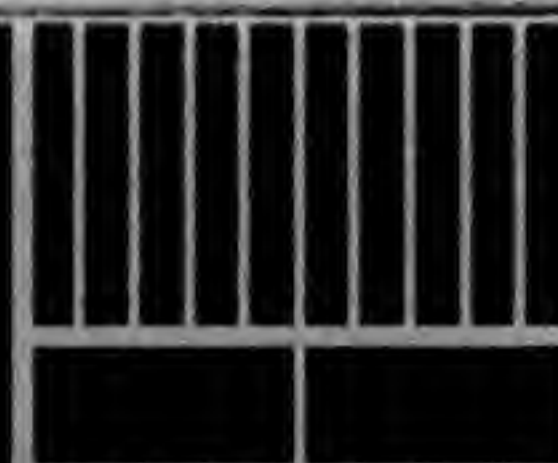
MISSOURI
BOTANICAL
GARDEN

**ARTHUR LETTCH,
APOTHECARY AND CHEMIST,**

Sixth and Market streets, St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

12446



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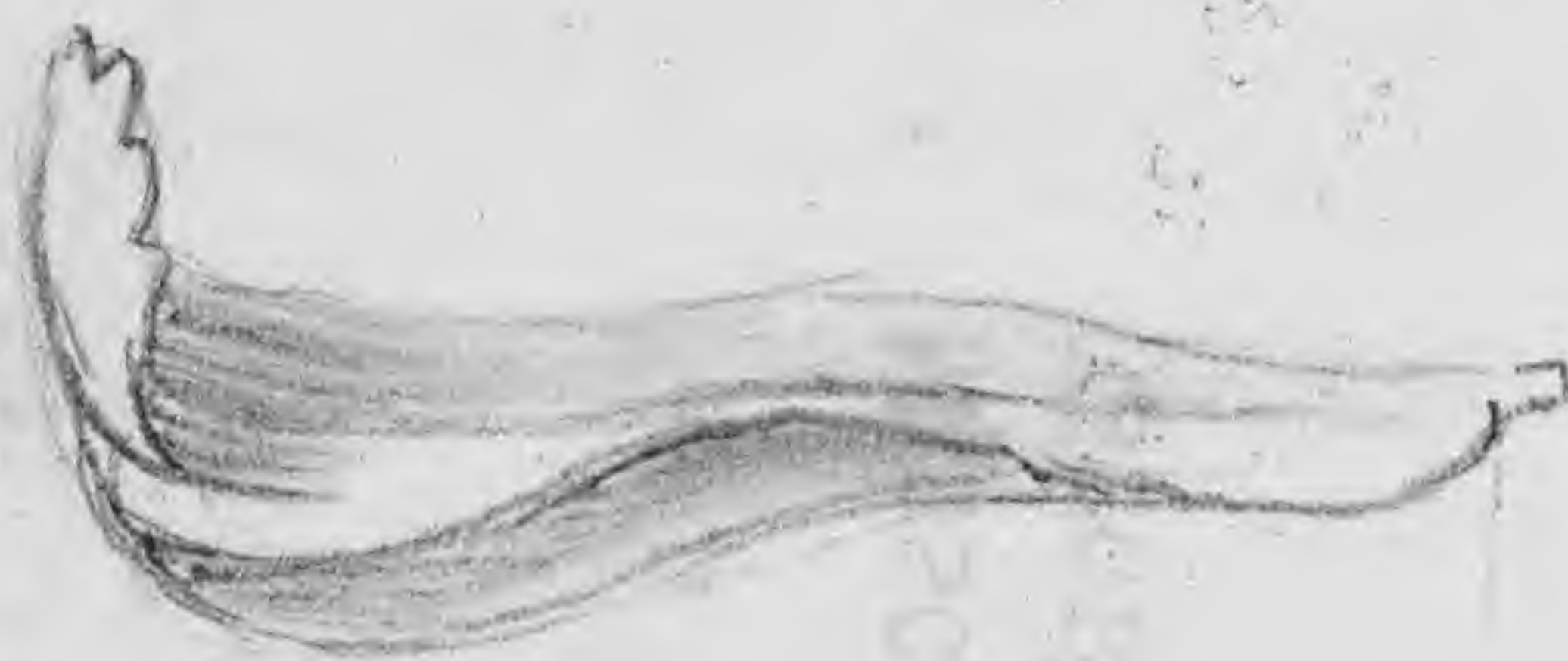


MISSOURI
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Abies Menziesii

Colorado Park

Dec. 1864



x 10

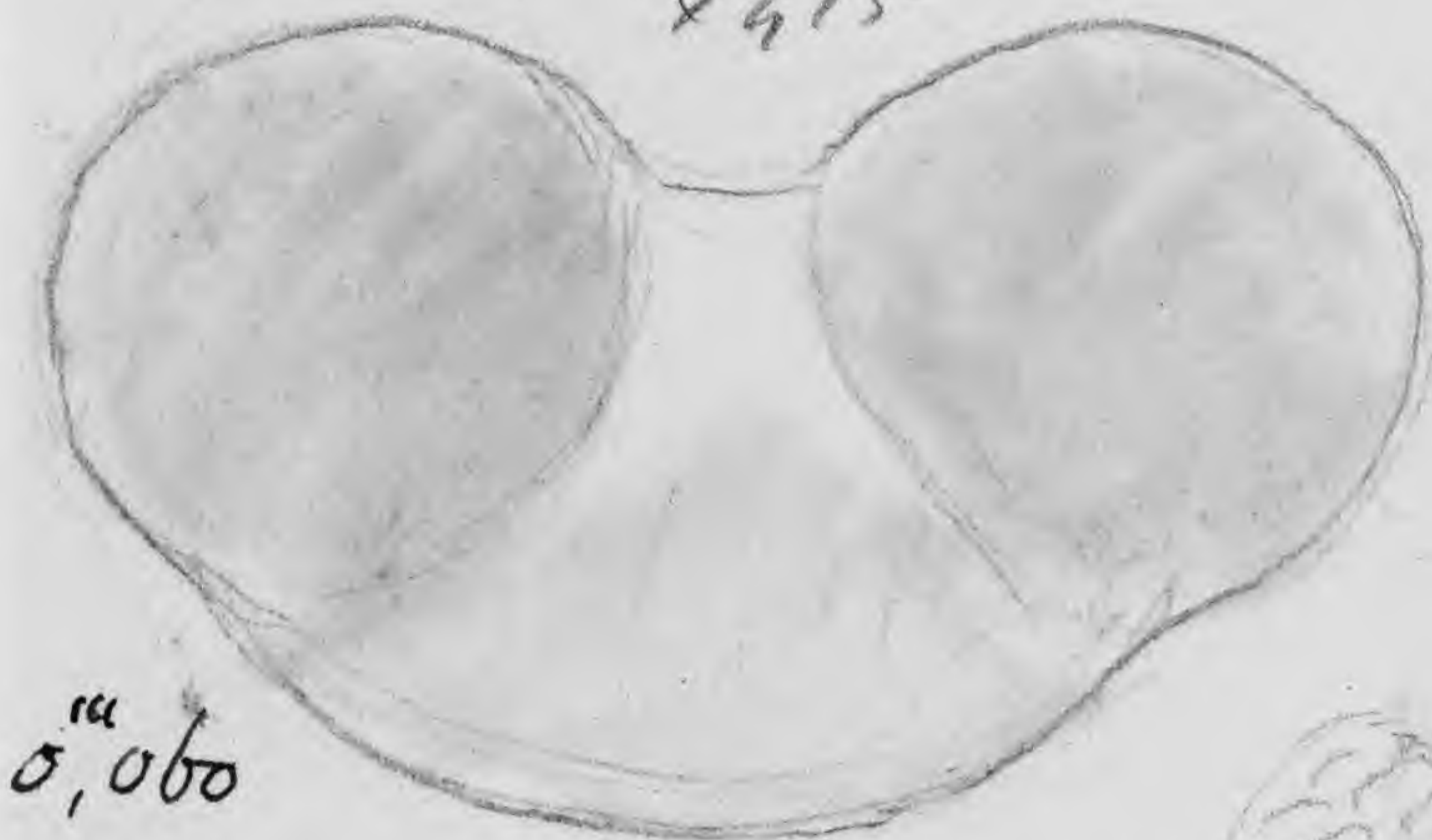


x 10



ovules

soon after fertilization

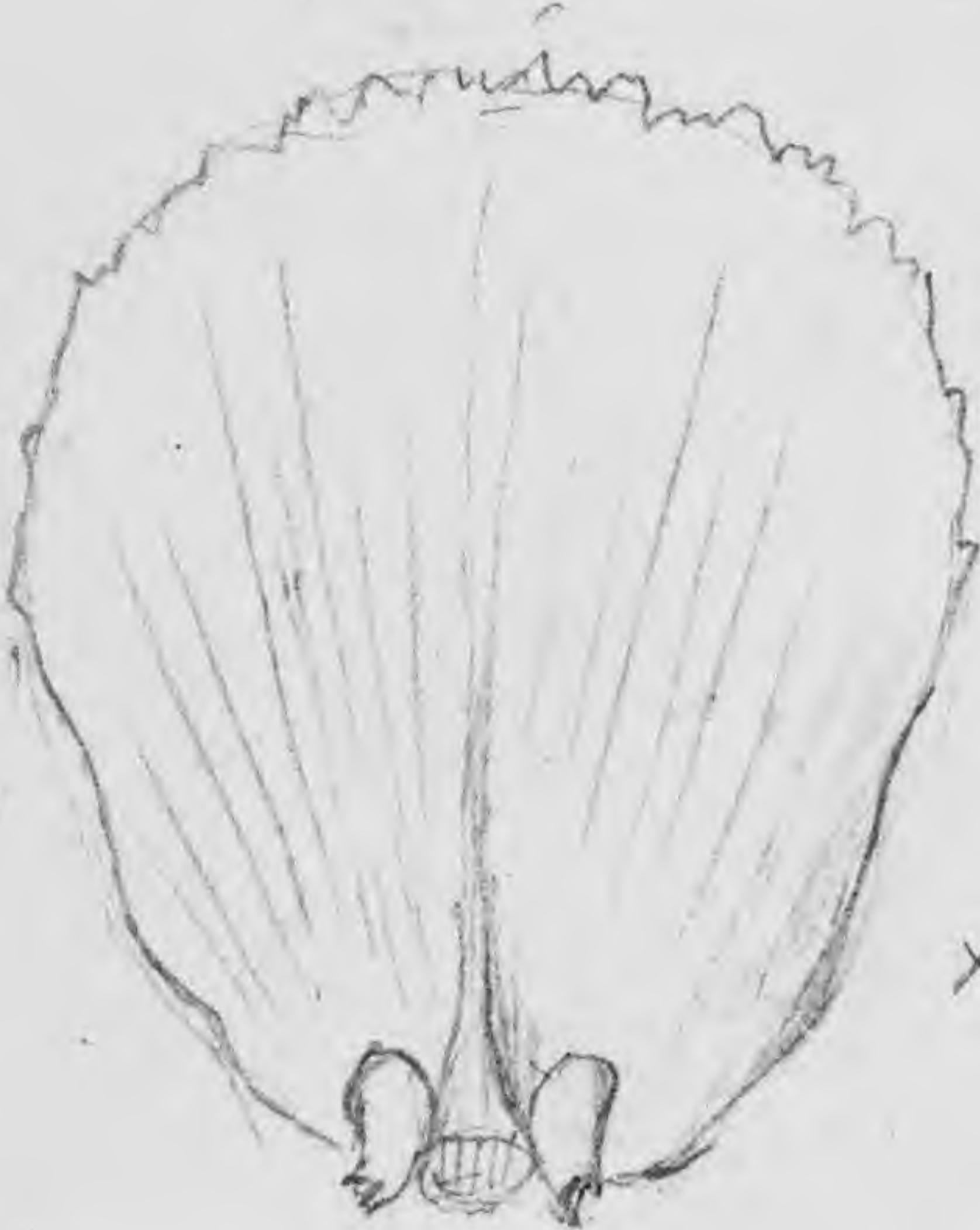


x 415

5,060



x 4



x 4



0 1 2 3 4 5 6 7 8 9 10

cm

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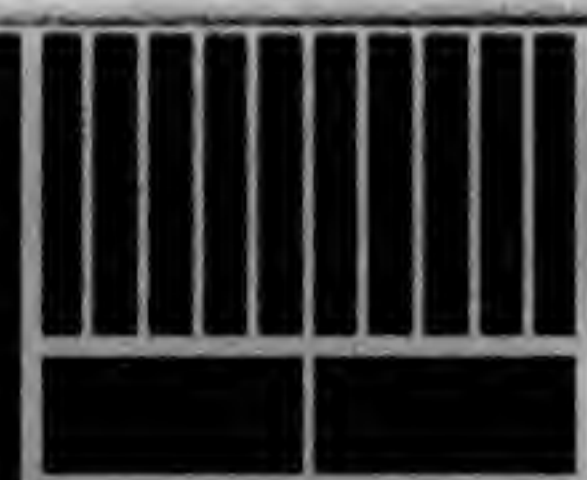
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 APOTHECARY & CHEMIST,
 Cor. 4th and Olive Sts., St. Louis.


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0.000

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